

CLAIMS

WHAT IS CLAIMED IS:

1. An axle driving apparatus, comprising:
 - a hydrostatic transmission, comprising a hydraulic pump connected to a hydraulic motor by a hydraulic circuit;
 - a bypass actuator engaged to the hydrostatic transmission to permit hydraulic fluid to flow out of the hydraulic circuit;
 - a bypass arm affixed to the bypass actuator and having an actuated position and a disengaged position; and
- 10 a latching arm to engage the bypass arm when the bypass arm is rotated into the actuated position.
2. The axle driving apparatus of claim 1, wherein a spring is attached to the latching arm to bias the latching arm toward an at-rest position.
3. The axle driving apparatus of claim 1, further comprising a brake mechanism for actuating a brake arm, whereby the brake mechanism also interacts with the latching arm such that the latching arm is biased toward an at-rest position when the brake mechanism is actuated.
- 15 4. The axle driving apparatus of claim 3, wherein the biasing of the latching arm toward the at-rest position disengages the latching arm from the bypass arm, allowing the bypass arm to move from the actuated position.
- 20 5. The axle driving apparatus of claim 3, wherein the brake mechanism causes the latching arm to be biased toward the at-rest position prior to actuation of the brake arm.

6. The axle driving apparatus of claim 5, wherein the brake mechanism further comprises a brake rod and a member that slidably engages the brake arm and the brake rod, wherein the brake rod moves the member such that the member contacts the latching arm to bias the latching arm toward the at-rest position, and further movement of the brake rod causes the member to engage and move the brake arm.

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7. The axle driving apparatus of claim 6, wherein the brake mechanism further comprises a spring mounted between an end of the brake rod and the member, such that the spring compresses with movement of the brake rod after the member has engaged the brake arm.

10 8. The axle driving apparatus of claim 1, wherein the latching end of the latch arm comprises a tab adapted to engage the bypass arm.

9. A method of maintaining a hydraulic bypass actuator in the actuated condition whereby hydraulic fluid is permitted to flow from a hydraulic circuit to a sump, the method comprising:

15 moving a bypass arm to rotate a bypass actuator to the actuated position to thereby allow hydraulic fluid to flow from the hydraulic circuit; and during movement of the bypass arm, causing the bypass arm to engage a latching arm such that upon release of the bypass arm the bypass arm is maintained in the actuated position.

20 10. The method of claim 9, further comprising a method of returning the latching arm to an at-rest position where the latching arm is not engaged to the bypass arm, the return method comprising:

 actuating a brake mechanism; and

during actuation of the brake mechanism, causing a portion of the brake mechanism to contact the latching arm and to thereby bias the latching arm toward the at-rest position.

11. The method of claim 10, wherein the brake mechanism comprises a brake arm, a
5 slidable member positioned in an opening located in the brake arm, and a brake rod positioned within the slidable member, wherein movement of the brake rod causes the slidable member to move within the brake arm to cause the latching arm to be biased toward the at-rest position.
12. The method of claim 11, wherein further movement of the brake rod causes the
10 slidable member to contact and move the brake arm.
13. The method of claim 11, wherein a spring is positioned on the brake rod between an end of the brake rod and the slidable member, such that movement of the brake rod causes the spring to contact and move the slidable member.
14. The method of claim 13, wherein movement of the brake rod after the slidable
15 member contacts the latching arm causes the slidable member to contact and move the brake arm.
15. The method of claim 14, wherein additional movement of the brake rod is allowed after the brake arm rotates by compression of the spring.